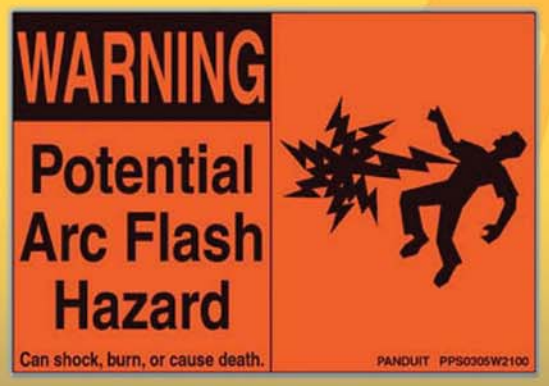
Prevention & Protection

WESCO Safety Guide™



WESCO offers a complete product solution for both prevention of and protection against an Arc Flash incident.

Current-Limiting Devices

- Fast-acting and peak current-limiting fuses
- Current-limiting breakers

Personal Protective Equipment

- Suits, hoods, gloves, footwear
- Remotely operated viewing and removal devices

Insulated Electrical Tools

- Electrician tool kits

Warning Labels

- Hardware and software for creating labels compliant with electrical codes
- Lockout/tagout hardware and procedures
- Training videos and instructional guides

WESCO provides a comprehensive product and service solution from awareness, education, training, and assessment to current-limiting devices, personal protective equipment, insulated tools, and warning labels to help customers prevent and protect against Arc Flash incidents. to comply with the NFPA 70E guidelines that OSHA is enforcing.

WESCO Distribution, Inc. is the operating arm of WESCO International, an industry-leading Fortune 500 distributor of MRO (maintenance, repair, and operating) products, construction products, and advanced integrated supply procurement outsourcing services. Headquartered in Pittsburgh, Pennsylvania, WESCO operates more than 370 full-service Branches throughout North America and around the world. Major markets served by WESCO include commercial and industrial construction, industrial process and discrete manufacturers, large industrial OEMs (original equipment manufacturers), electric utilities, data communications, and retail/commercial power and lighting controls.

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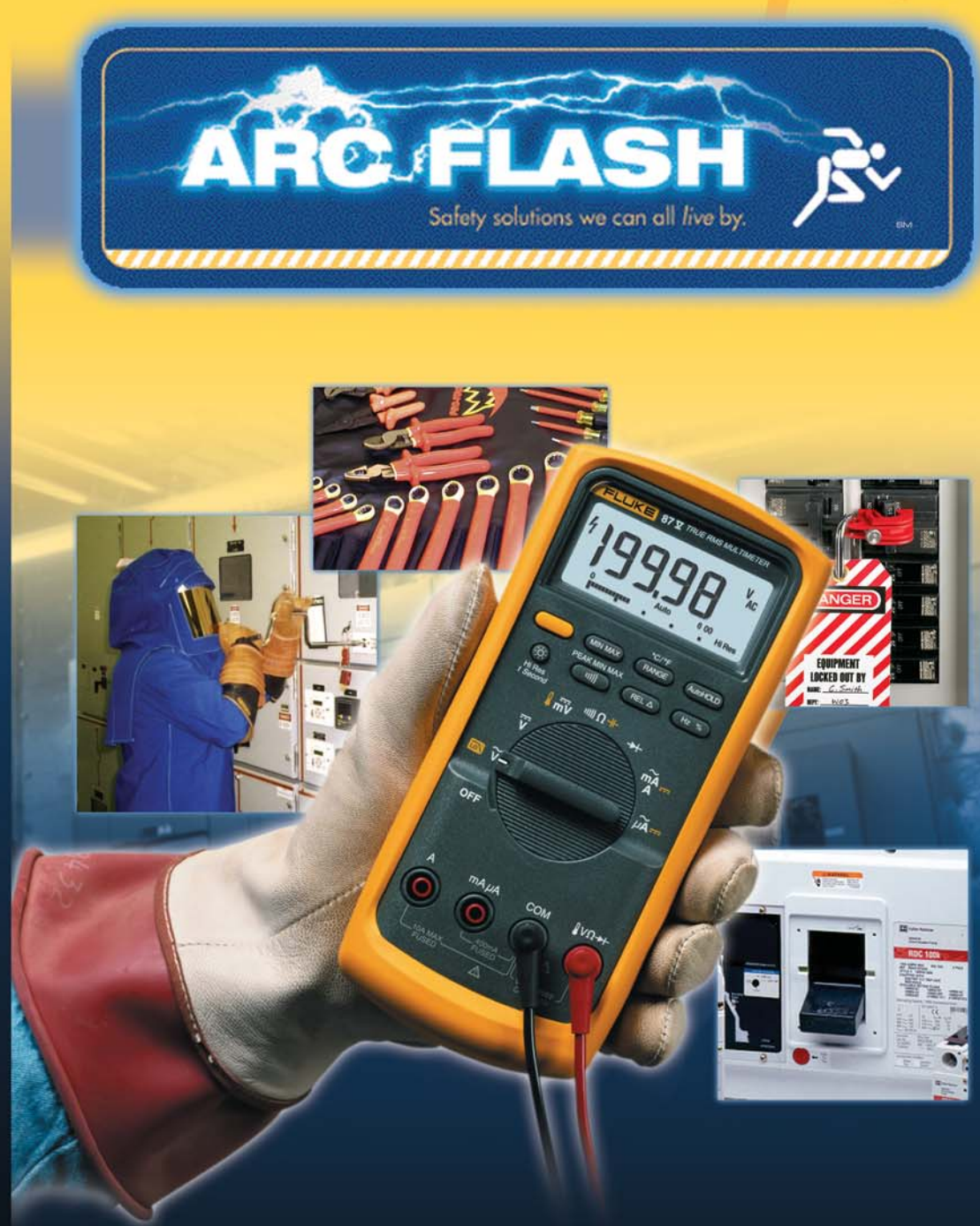

WESCO DISTRIBUTION℠

Protect your workers and your company's bottom line with Arc Flash Safety Solutions from WESCO.

ARC FLASH SAFETY SOLUTION

Protect your workers and your company's bottom line with WESCO's Arc Flash Safety Solution.

Arcing faults in electrical equipment can release explosive amounts of energy and cause equipment damage, disabling accidents, or deaths. They have also led to substantial fines for facility owners and contractors.

With the proper precautions, Arc Flash incidents are far less likely to occur. New regulations and standards specify procedures and protective products proven to reduce the risk of damage and injury.

Reduce the potential for worker injuries and equipment downtime with a comprehensive Arc Flash Safety Solution from WESCO!

What Is an Arc Flash?

An Arc Flash is a short-circuit flow of electrical current between two phases, or from phase to ground, which occurs in the air between conductors. It can happen in a panelboard, switchboard, or other equipment that has exposed conductors. Insulation failure, corrosion, improper work procedures, or faulty equipment designs contribute to the more than 1,500 reported Arc Flash incidents each year.

The split-second flow of electrical current releases energy, producing a violent heat rise with a temperature of up to 35,000° F — four times the temperature of the sun — causing a flash fire, vapourizing copper, and propelling metal shrapnel from the incident point. Serious injury to personnel and collateral damage to electrical enclosures, process equipment, and facility structures can result.

Hazard Analysis

A Hazard Analysis can help determine the likelihood of an Arc Flash occurring in a facility's electrical distribution system.

Trained service engineers identify the amount of available current and the design of protective equipment at each distribution point. Based on this information, an accurate estimate of the heat that would be produced by an Arc Flash can be made for each enclosure. The Hazard Analysis provides detailed aspects of a potential fault, including duration, magnitude, and energy level.

NFPA[1] 70E and IEEE[2] 1584 calculations are applied to data collected during the Hazard Analysis to determine the required personal protective equipment (PPE) and flash protection boundaries.

A final Hazard Analysis report states the safe distance from each enclosure and the PPE that must be worn to ensure worker safety.

[1]National Fire Protection Association
[2]Institute of Electrical and Electronic Engineers

ARC FLASH
Safety solutions we can all *live* by.

Innovative Electrical Products

WESCO offers a complete product solution for both prevention of and protection against an Arc Flash incident.

An Arc Flash may be prevented or its intensity reduced by the use of current-limiting devices. At the same time, workers can be protected through safe work procedures and by the use of Personal Protective Equipment (PPE), insulated tools, hazard identification systems, and lockout/tagout devices.

Current-Limiting Devices reduce the amount of energy and heat that can be generated by an Arc Flash, thereby reducing the required PPE level and flash protection boundary dimensions.

- Fast-acting and peak current-limiting fuses
- Current-limiting breakers

Personal Protective Equipment guards personnel working close to energized conductors from the intense heat resulting from an Arc Flash.

- Suits, hoods, gloves, footwear
- Remotely operated viewing and removal devices

Insulated Electrical Tools coated in nonconductive materials prevent the shorting of energized conductors if contacted.

- Electrician tool kits

Warning Labels properly identify the potential hazard zones and indicate the level of PPE that must be worn.

- Hardware and software for creating labels compliant with electrical codes
- Lockout/tagout hardware and procedures
- Training videos and instructional guides

WESCO Solutions for Electrical Workplace Safety

WESCO provides a comprehensive product and service solution from awareness, education, training, and assessment to current-limiting devices, personal protective equipment, insulated tools, and warning labels to help customers prevent and protect against Arc Flash incidents. This complies with the NFPA 70E guidelines that OSHA is enforcing.

Schedule a Hazard Analysis today!

Contact your local WESCO Branch ***(see Inside Back Cover)*** *and ask for WESCO's Arc Flash Specialist.*

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Cutler-Hammer

Eaton Arc Flash Solutions.

Safety means… arc flash solutions for your company

The Canadian Standards Association (CSA) recently announced it will create a new CSA standard based on the National Fire Protection Association (NFPA) 70E Standard on Workplace Electrical Safety. This new standard will be designated CSA-Z462.

To assist you in the implementation of this standard, Eaton has created the industry's most complete and comprehensive arc flash solutions program. Eaton is a leader in developing industry safety standards, training, and equipment aimed at reducing arc flash incidents. They have the experience, expertise, and resources to deal with the challenges posed by arc flash in electrical equipment.

Eaton's solutions focus on:

- **Enhancing Safety —** Improve overall arc flash safety through training, labeling, analysis, and products that reduce or eliminate exposure to dangerous situations
- **Cost Avoidance —** Reduce or eliminate unplanned downtime, equipment damage, fines, lawsuits, injuries, and fatalities through improved safety practices
- **Risk Mitigation —** Meet or exceed the standards from NFPA 70E-2004 "Standard for Electrical Safety in the Workplace" and IEEE 1584 "Guide for Performing Arc Flash Hazard Calculations"

Hazard Analysis

A key component of Eaton's Arc Flash Safety Solutions is the arc flash hazard analysis, which is critical to the safety of personnel working on or near exposed energized electrical equipment. Eaton's analysis quantifies the release of thermal energy associated with potential arc flash hazards and results in safety recommendations such as establishing protection boundaries and specifying protective equipment for personnel.

While others offer analysis, few can match Eaton's extensive field-based expertise backed by a full line of mitigating products and services.

Training and Implementation

In the new safety-conscious environment, operators who work with electrical equipment must become familiar with new terms such as Arc Thermal Performance Exposure Value (ATPV), Hazard Risk Category, and Flash Protection Boundary. They must also understand how the power of a potential arc, along with its duration and distance from the worker, interact to determine the potential for personal injury. This leaves the burden on the employer to provide the training, equipment, and work rules for safety where hazards might occur. This also requires staff to make the necessary calculations and to apply very specific recommendations. In many cases, these skills aren't available within the company. This is where Eaton can provide the tools and training for a safer workplace.

Eaton's arc flash safety training can be customized to meet the unique requirements of each company. Eaton's training staff supports the electrical engineers who work with companies daily to perform analysis and install, commission, troubleshoot, and maintain electrical equipment. The training program educates key personnel about how to determine risk, establish flash protection boundary distances for equipment in their facilities, how to select components to minimize arc flash hazards, and how to choose personal protection equipment.

Grasp of Evolving Safety Requirements

Eaton's electrical services group includes engineers who contribute to the development of today's new safety codes and methods. They stand out as resources for committees and businesses attempting to stay ahead of codes and regulations.

To learn more, or to schedule an arc flash safety evaluation program at your facility, call **1-800-268-3578**.

Visit **www.arcflashsafetysolutions.com**.

Cutler-Hammer

Please contact your local WESCO Branch for additional products and more information.
For a list of Branches, see page the inside back cover.

Cutler-Hammer Series C and Series G Moulded Case Circuit Breakers

Tested to *Maximum* Category 1 PPE Arc Flash hazard protection

- 600V AC
- 15–1,200 continuous amperes
- 15X handle rating to 100,000 amperes fault current

When working on electrical equipment, there is always the imminent danger of arc flash, and precautionary measures must be taken for utmost protection. With Eaton's Cutler-Hammer Series C and Series G moulded case circuit breakers, you obtain high performance and safety ratings with less hassle and more comfort.

Cutler-Hammer® brand Series C and Series G moulded case circuit breakers (MCCB) significantly outperform the calculations listed in The Institute of Electrical and Electronic Engineers (IEEE) standard 1584-2002, Guide for Performing Arc Flash Hazard Calculations.

Arc Flash and Personal Injury

Electric arcs result from thermal ionization that occurs when current flow is interrupted by the separation of conductors. Thermal ionization can generate temperatures as high as 20,000° C. Conductor materials melt into metal vapour and the surrounding air is ionized. If the arc is outside the interrupting chamber of a circuit breaker. then a violent explosion occurs resulting in an inferno of ionized gases, molten debris, metal shrapnel. and a flash of light (Arc Flash). When arc flash initiates in a switchgear cabinet, the rapidly escalating pressure will dislodge compartment doors and side sheets of the switchgear and turn hardware into high-speed projectiles.

Personal Protective Equipment Required for Arc Flash Exposure

Many Arc Flash incidences with LV and MV switchgear occur during the process of inserting and removing (racking) Power Circuit Breakers in switchgear cubicles. Personnel are typically within 1 metre of the front of the circuit breaker during the racking process and this close proximity to an arc flash can cause serious injury. Published records indicate more than 2,000 people are treated annually in burn centers from exposure to arc flash and some result in death. NFPA 70E provides guidance for the requirements of personal

Universal Remote Power Racking System (RPR-2)

Racking 50-DHP-VR

protective equipment (PPE) to protect personnel from arc flash exposure. PPE for high levels of Arc Flash can be bulky, hot, and uncomfortable. This may dissuade personnel from wearing proper protection. An arc flash occurrence is definitely a time when you want to be "dressed for the occasion."

A good way to limit exposure to arc flash during the process of racking power circuit breakers is to put more distance between the person and the possible point of exposure.

Safety Solution

Eaton's RPR-2 provides a means of remotely racking most power circuit breakers that utilize the rotation of a shaft for insertion and removal. The person can be 7.5 metres or more away from the switchgear door during the racking process. This enables personnel to wear a lower level of PPE while operating the RPR-2 from an increased distance from the breaker. Because personnel can be outside the flash protection boundary while operating the RPR-2, the circuit breaker door does not have to be closed during the racking process. Closed door racking is possible with many designs, however structure modifications may be necessary.

Customer surveys have shown that any remote racking device must:

- Be easily and quickly set up
- Require minimum programming
- Be portable and easy to maneuver
- Be capable of racking numerous manufacturers' models of circuit breakers

The RPR-2 system is the solution that provides the value customers requested. Contact your nearest Eaton representative and see the system built from customers' ideas.

EATON
Cutler-Hammer

Alternatives to Reduce PPE

Requirements

- De-energize equipment. Not always feasible
- Move the person farther away from the electric arc. This can be achieved with tools and techniques such as remote racking or remote switching
- Lower the available fault current. This may be difficult to achieve
- Change the overcurrent protection to a faster tripping time. This can be easily accomplished with an Arcflash Reduction Maintenance Switch retrofit

Arcflash Reduction Maintenance Switch

A circuit breaker equipped with an Arcflash Reduction Maintenance Switch can improve safety by providing a simple and reliable method to reduce fault clearing time. The Arcflash Reduction Maintenance Switch is controlled by a lockable switch that can easily activate a faster tripping time at the work location and be incorporated into a Lock Out Tag Out (LOTO) procedure. Equipment downstream of a circuit breaker equipped with an Arcflash Reduction Maintenance Switch can have a significantly lower incident energy level. An Arcflash Reduction Maintenance Switch can be applied to any LV power breaker by modifying the existing Digitrip™ trip system or retrofitting a breaker with a Digitrip™ retrofit kit.

Door-Mounted Hardware

Benefits of Arcflash Reduction Maintenance Switch

- Increased personnel safety — by limiting the available arc flash energy
- Simple to operate
- Enabled with the circuit breaker door closed by a door-mounted lockable switch (no extra PPE required)
- Enabled only for the time required to perform the work
- Preserves overcurrent coordination under normal conditions
- Reduction in incident energy levels may permit reduced levels of PPE improving worker comfort and mobility

Application of the Arcflash Reduction Maintenance Switch

The Arcflash Reduction Maintenance Switch has five pickup settings that must be chosen by an experienced power system analyst. The setting is chosen to avoid nuisance tripping due to load and/or transient currents. This "engineered" setting is enabled with a simple lockable switch. In addition, remote annunciation is possible through use of an available auxiliary contact.

Breaker Mounted Hardware

FLIR Systems, the global leader in thermal imaging, introduces North America's most inexpensive, professional-grade infrared camera. Inspecting and reporting on the status of electrical switchgear, MCCs, rotating equipment, and even building envelope problems is quick and effortless with the NEW FLIR InfraCAM.

FLIR InfraCAM

Professional infrared cameras for electrical and mechanical predictive maintenance

- Manufactured and supported by the global Leader in Infrared Cameras for more than 45 years
- Built for rugged environments
- 7-hour LiON battery
- Nonproprietary JPEG Images can be easily inserted in Microsoft Word
- Simple USB image download
- 1¼ lb.
- Training direct by manufacturer

Part No.	Mfr.'s Model No.
400806-98999	27801-0101

FLIR Hawk IR Infrared Sight Glasses

Infrared sight glasses designed and tested to reduce the risk of arc flashes

- Approved for cUL retrofit
- Tested to 40kA Arc Flash to meet IEEE C37 and IEC 6271-200
- Rugged Nema Type 3/12 and IP65 designed
- Locking system with NO internal fasterners required
- Available in various sizes and low voltage models available

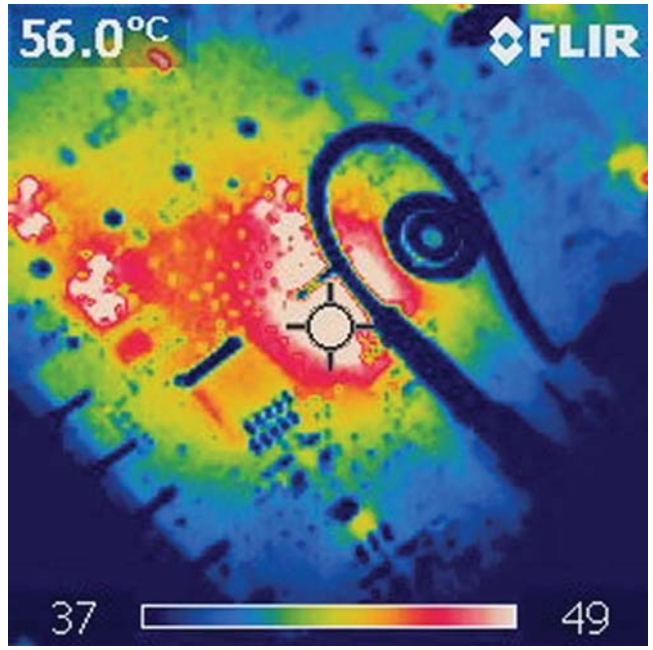
Part No.	Mfr.'s Model No.	Description
400806-98998	19250-000	2" Cystal Window
400806-98997	19251-000	3" Cystal Window
400806-98996	19252-000	4" Cystal Window

FLIR ThermaCAM EX320

Arc Flash safety in the palm of your hand

When resolution and sensitivity matters, no one provides solutions like FLIR Systems. Capture overhead bolted connections or upclose switchgear using the hot-swap telescope or wide angle-lens and remain safe. Capturing and reporting your hot spot has never been easier with report generation software that works within Microsoft Word.

- Professional-grade 4X Resolution (76,800 pixels)
- Nonproprietary JPEG image capture
- Interchangeable lens options
- 4X zoom
- Auto hotspot capability
- 2.5 lbs. (lightweight and ergonomic)
- Complete system with battery charger and LiOn batteries



This thermal image was taken with a FLIR InfraCAM of a printed circuit board from 18 inches. Infrared cameras are superior tools for spotting quality control problems on electronics.

Learn more about arc flash hazards, protection, and safety at ferrazshawmut.com/arcflash.

Our new Arc Flash Resource Center is your most complete source for up-to-the-minute information about:

- The dangers of arc flash
- What you need to do to protect workers and comply with OSHA requirements
- What's required in an arc flash hazard analysis, including an online arc flash calculator
- How to mitigate the effects of arcing faults and improve safety

Ferraz Shawmut AMP-TRAP® 2000 A2D & A6D Time Delay Class RK1 Fuses

- Solid state SmartSpot indicator
- Time delay for motor starting and transformer inrush currents without nuisance opening
- 300kA interrupting rating — self-certified, UL® witnessed tests
- Extremely current limiting for low peak let-thru current
- Easy 2-to-1 selectivity for prevention of nuisance shut downs and "blackouts"
- High-visibility orange label gives instant recognition
- Reduced inventory by taking the place of RK5, K, and H fuses
- Rejection-style design prevents replacement errors (when used with recommended fuse blocks)
- Metal-embossed date and catalog number for easier traceability and lasting identification
- Fiberglass body provides dimensional stability in harsh industrial settings

Ratings and approvals:
A2D – AC: 1/10 to 600A 250VAC, 200kA I.R. (self certified for 250VAC, 300kA I.R., UL® witnessed)
A6D – AC: 1/10 to 600A 600VAC, 200kA I.R. (self certified for 600VAC, 300kA I.R.)
UL® Listed to Standard 248-12
CSA Certified to Standard C22.2 No. 248.12

250V

Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps
A2D1/10R	1/10	A2D2-1/4R	2¼	A2D10R	10	A2D90R	90
A2D15/100R	15/100	A2D2-1/2R	2½	A2D12R	12	A2D100R	100
A2D2/10R	2/10	A2D2-8/10R	2⅘	A2D15R	15	A2D110R	110
A2D3/10R	3/10	A2D3R	3	A2D17-1/2R	17½	A2D125R	125
A2D4/10R	4/10	A2D3-2/10R	3⅕	A2D20R	20	A2D150R	150
A2D1/2R	½	A2D3-1/2R	3½	A2D25R	25	A2D175R	175
A2D6/10R	6/10	A2D4R	4	A2D30R	30	A2D200R	200
A2D8/10R	8/10	A2D4-1/2R	4½	A2D35R	35	A2D225R	225
A2D1R	1	A2D5R	5	A2D40R	40	A2D250R	250
A2D1-1/8R	1⅛	A2D5-6/10R	5⅗	A2D45R	45	A2D300R	300
A2D1-1/4R	1¼	A2D6R	6	A2D50R	50	A2D350R	350
A2D1-4/10R	1⅘	A2D6-1/4R	6¼	A2D60R	60	A2D400R	400
A2D1-6/10R	1⅗	A2D7R	7	A2D70R	70	A2D450R	450
A2D1-8/10R	1⅘	A2D8R	8	A2D75R	75	A2D500R	500
A2D2R	2	A2D9R	9	A2D80R	80	A2D600R	600

600V

Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps
A6D1/10R	1/10	A6D20R	20	A6D9R	9	A6D90R	90
A6D15/100R	15/100	A6D2-1/4R	2¼	A6D10R	10	A6D100R	100
A6D2/10R	2/10	A6D2-1/2R	2½	A6D12R	12	A6D110R	110
A6D3/10R	3/10	A6D2-8/10R	2⅘	A6D15R	15	A6D125R	125
A6D4/10R	4/10	A6D3R	3	A6D17-1/2R	17½	A6D150R	150
A6D1/2R	½	A6D3-2/10R	3⅕	A6D20R	20	A6D175R	175
A6D6/10R	6/10	A6D50R	50	A6D25R	25	A6D200R	200
A6D8/10R	8/10	A6D4R	4	A6D30R	30	A6D225R	225
A6D1R	1	A6D4-1/2R	4½	A6D35R	35	A6D250R	250
A6D1-1/8R	1⅛	A6D5R	5	A6D40R	40	A6D300R	300
A6D1-1/4R	1¼	A6D5-6/10R	5⅗	A6D45R	45	A6D350R	350
A6D1-4/10R	1⅘	A6D6R	6	A6D50R	50	A6D400R	400
A6D1-6/10R	1⅗	A6D6-1/4R	6¼	A6D60R	60	A6D450R	450
A6D1-8/10R	1⅘	A6D7R	7	A6D70R	70	A6D500R	500
A6D2R	2	A6D8R	8	A6D80R	80	A6D600R	600

Ferraz Shawmut AMP-TRAP® 2000 A4BQ Time-Delay Class L Fuses

- Fastest operation under short circuit conditions: Let-thru currents are typically 20% lower, with a corresponding let-thru energy (clearing I2t) up to 40% lower than the next fastest Class L fuse
- Time delay for high inrush loads such as motors and transformers, without nuisance opening
- 300kA interrupting rating — self-certified, UL® witnessed tests
- Most current limiting for lowest peak let-thru current; even at fault currents up to 300kA
- Pure silver links ensure lowest let-thru current and longer fuse life
- Easy 2-to-1 selectivity for prevention of nuisance shutdowns and "blackouts"
- High-grade silica filler ensures fast arc quenching

Ratings and approvals:
AC: 100 to 6000A 600VAC, 200kA I.R. (self certified for 600VAC, 300kA I.R., UL® witnessed) 4-second delay at 500% rating. NOTE: 100–600A ratings are non-listed;
DC: 601– 3000A 500VDC, 100kA I.R.
UL® Listed to Standard 248-10 (601–6000A); DC Listed to UL® Standard 198L (601–3000A); CSA Certified to Standard C22.2 No. 248.10 (601–6000A)

Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps
A4BQ100	100	A4BQ500	500	A4BQ1000	1000	A4BQ2500	2500
A4BQ150	150	A4BQ600	600	A4BQ1200	1200	A4BQ3000	3000
A4BQ200	200	A4BQ601	601	A4BQ1350	1350	A4BQ3500	3500
A4BQ250	250	A4BQ650	650	A4BQ1400	1400	A4BQ4000	4000
A4BQ300	300	A4BQ700	700	A4BQ1500	1500	A4BQ5000	5000
A4BQ350	350	A4BQ750	750	A4BQ1600	1600	A4BQ6000	6000
A4BQ400	400	A4BQ800	800	A4BQ1800	1800		
A4BQ450	450	A4BQ900	900	A4BQ2000	2000		

Ferraz Shawmut AMP-TRAP® 2000 AJT Time-Delay Class J Fuses

- Solid state SmartSpot indicator
- Time delay for motor starting and transformer inrush
- 300kA interrupting rating — self-certified, UL® witnessed tests
- Extremely current limiting for low peak let-thru current
- Most current limiting UL® class fuse
- Small footprint requires less mounting space, and allows smaller, more economical fuse blocks
- Easy 2-to-1 selectivity for prevention of nuisance shutdowns
- Unique Class J dimensions prevent replacement errors
- High-grade silica filler ensures fast arc quenching
- Optional EI Indicator/Switch mount for AJT70 to 600 open fuse indication

Ratings and approvals:
AC: 1 to 600A 600VAC, 200kA I.R. (self certified for 600VAC, 300kA I.R., UL® witnessed);
DC: 1 to 600A 500VDC, 100kA I.R.
AJT (1-600): UL® Listed to Standard 248-8: DC Listed to UL® Standard 198L: CSA Certified to Standard C22.2 No. 248.8 IEC 269-2-1
AJT (70-600) EI: UL® Component Recognized; DC Tested to UL Standard 198L

Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps	Mfr.'s Model No.	Amps
AJT1	1	AJT4-1/2	4½	AJT25	25	AJT150	150
AJT1-1/4	1¼	AJT5	5	AJT30	30	AJT175	175
AJT1-1/2	1½	AJT5-6/10	5⅗	AJT35	35	AJT200	200
AJT1-6/10	1⅗	AJT6	6	AJT40	40	AJT225	225
AJT1-8/10	1⅘	AJT6-1/4	6¼	AJT45	45	AJT250	250
AJT2	2	AJT7	7	AJT50	50	AJT300	300
AJT2-1/4	2¼	AJT8	8	AJT60	60	AJT350	350
AJT2-1/2	2½	AJT9	9	AJT70	70	AJT400	400
AJT2-8/10	2⅘	AJT10	10	AJT80	80	AJT450	450
AJT3	3	AJT12	12	AJT90	90	AJT500	500
AJT3-2/10	3⅕	AJT15	15	AJT100	100	AJT600	600
AJT3-1/2	3½	AJT17-1/2	17½	AJT110	110		
AJT4	4	AJT20	20	AJT125	125		

61-774

IDEAL® Industrial/Commercial Clamp Meters

Designed for a variety of commercial and industrial applications

- Test basic current measurements, AC or AC/DC current, true RMS, and frequency measurement
- New TightSight™ display in the bottom of the unit provides a level of testing freedom and safety beyond any test tool on the market
- High voltage warning ensures users are alerted of voltage through the test leads, even if the meter is set incorrectly on the wrong function

61-768

Part No.	Mfr.'s Model No.
760 Series — 600A, cUL® Listed, Cat. IV	
783250-61764	61-764
783250-61766	61-766
783250-61768	61-768
770 Series — 1000A, cUL® Listed, Cat. III	
783250-61772	61-772
783250-61774	61-774

61-766

61-772

61-764

IDEAL® Insulated Tool Sets

The only 1000V pliers with UL® Classification!

Arc Flash is a serious hazard that requires special protection to ensure safety in the workplace for electricians. IDEAL's premium 1000V insulated tools include the only UL® Classified insulated pliers available on the market. This new line meets all ASTM, IEC, VDE, and UL® standards, and includes screwdrivers, nutdrivers, and an assortment of pliers.

- Pliers are made of high carbon steel rated for cutting hardened wire and ACSR
- Plier blades and screwdriver tips are hand filed for precision mating and fit
- Safety features include double-insulated handles and a soft, yet durable, easy-to-grip outer surface
- Lifetime guarantee

Part No.	Mfr.'s Model No.	Description
783250-57659	35-9302	25-Piece Journeyman Insulated Kit with Case
783250-57657	35-9301	17-Piece Standard Insulated Kit with Case
783250-57656	35-9300	9-Piece Basic Insulated Kit with Case
783250-57661	35-9303	Screwdriver Set with Case
783250-57662	35-9304	Nutdriver Set with Case

NOTE: Individual pieces also sold separately.

FLUKE

Fluke® Thermal Imagers

Unbeatable solution for predictive maintenance and troubleshooting

- Includes unlimited-use InsideIR™ companion software and professional training materials
- Easy to use — just point, focus, and shoot
- Plan your equipment inspection route, load it once into the imager, and then follow the easy, on-camera instructions each time you perform inspections
- Affordable instrument service and calibration

Ti20

Ti30

Part No.	Mfr.'s Model No.
095969-293556	Ti20
095969-29092	Ti30

Features	Ti20	Ti30
InsideIR™ Software	Yes	Yes
Training	Training Materials on CD	One Seat in 2-Day Training Course and Training Materials on CD (U.S. only; package varies by country)
Environmental	IP54	N/A
Image Storage Capacity	50 with Radiometric Data	100 with Radiometric Data
Thermal Detector	80 x 60 Thermal Element Uncooled Focal Plane Array	120 x 160 Thermal Element Uncooled Focal Plane Array
Optical Resolution	75:1	90:1
NETD	200mK	200mK
Temperature Range	14–662˚ F (-10–350˚ C)	14–482˚ F (-10–250˚ C)
Accuracy	±2% or ±2˚ C	±2% or ±2˚ C (±3% or 3˚ C from -10˚ to 0˚ C)
Focus	24" to infinity	24" to infinity
Field of View	20˚ Horiz. x 15˚ Vert.	17˚ Horiz. x 12.8˚ Vert.
Target Sighting	Single Laser IEC & FDA Class II	Single Laser IEC & FDA Class II
Measurement Modes	Manual, Span Adj.	Automatic, Semi-Automatic, Manual
Adjustable Emissivity	0.10 to 1.00 in 0.01 Increments	0.1 to 1.0 by 0.01 Increments
Power	Rechargeable Battery Pack	Rechargeable Battery Pack or 6 AA batteries
Battery Life	3 Hours	5 Hours
Operating System Compatible	Windows® 2000 or XP	Windows® 2000 or XP
Warranty	1 Year	1 Year

Fluke® 430 Series Three-Phase Power Quality Analyzers

Pinpoint power quality problems faster, safer, and in greater detail

Fluke-434

- Measure voltage, current, frequency, power, power consumption (energy), unbalance and flicker, harmonics and inter-harmonics
- AutoTrend
- Capture events like dips and swells, transients, interruptions, and rapid voltage changes
- System-monitor checks conformity to limits specified in EN50160 or to own custom limits
- Cursors and zoom can be used "live" or "offline" (stored measurements can be transferred to a PC with FlukeView software)
- CAT IV — 600V; CAT III — 1,000V rated

Model 434
- Automatic transient and inrush modes
- Data transfer to PC
- Includes hard carrying case with clamp holders; current clamps (4x); test leads and alligator clips; NiMH battery pack (installed); battery charger/line voltage adapter; FlukeView® software; serial interface adapter/cable (USB); color localization set; getting started manual; user manual (CD-ROM)

Model 435
- Includes hard carrying case with rollers; flexible current probes (i430-flex); test leads and clips; battery charger; FlukeView® software; Power Log software; optical USB cable; colour localization set; getting started manual; user manual (CD-ROM)

Part No.	Mfr.'s Model No.	Description	Memory (Mb)	Transient Display	Inrush Current	(V, A, W), K-Factor
095969-26404	Fluke-434	PQ Analyzer	8Mb	Yes	Yes	Yes
095969-35293	435/003	PQ Analyzer + Log Function	16Mb	Yes	Yes	Yes

FLUKE

Fluke® 3 and 4 Pole Earth Ground Tester

The most complete earth ground testers

The new Fluke-1625 Advanced GEO Earth Ground Tester and Fluke-1623 GEO Earth Ground Tester offer an innovative solution, called Stakeless testing, along with additional advanced features to make your earth ground loop resistance testing quicker and easier.

The Fluke-1625 and Fluke-1623 are distinctive earth ground testers that can perform all four types of earth ground measurement:
- 2 and 3 pole fall of potential (using stakes)
- 4 pole soil resistivity testing (using stakes)
- Selective testing (using 1 clamp and stakes)
- Stakeless testing (using 2 clamps only)

Part No.	Mfr.'s Model No.	Description
095969-34032	Fluke-1623	Basic GEO Earth Ground Tester
095969-34031	Fluke-1623 Kit	Basic GEO Earth Ground Tester Kit
095969-34069	Fluke-1625	Advanced GEO Earth Ground Tester
095969-34033	Fluke-1625 Kit	Advanced GEO Earth Ground Tester Kit

All Kits contain: (1) Fluke-1623 or 1625 tester, (4) stakes, (2) 25m cable reels, (1) 50m cable reel, (1) Sensing clamp, (1) Inducing clamp, all necessary connectors, test leads, batteries, manual, and rugged carrying case

Fluke® Infrared Thermometers

62 Mini Infrared Thermometer
- Measures surface temperatures of motors, electrical equipment, insulated walls, heating, ventilation, and refrigeration systems from safe distance
- Accurate to within ±1% of reading
- Repeatability: ±0.5% of reading or < ±2˚ F (±1˚ C), whichever is greater
- Typical distance to target: up to 6'

63 Infrared Noncontact Thermometer
- Enhanced optics
- Holds temperature readings

Fluke-62 *Fluke-63* *Fluke-66* *Fluke-68* *Fluke-68iS*

66 Infrared Noncontact Thermometer
- Designed to help the industrial maintenance technician diagnose problems faster
- Adjustable emissivity
- Record up to 12 temperature readings
- Measure internal and surface temperatures
- 500 msec. response time for accurate readings when target temperature is changing rapidly
- Higher optical resolution

68 Infrared Noncontact Thermometer
- Accurately measures most plant equipment, including manifolds and turbochargers
- 500 msec. response time for accurate readings when target temperature is changing rapidly
- Adjustable emissivity
- Higher optical resolution
- Has opening for a probe jack

68IS (Intrinsically Safe) Infrared Noncontact Thermometer
- High/low alarm scans panel quickly
- Compares two spot measurements against each other
- Holds temperature readings
- Enhanced optics
- Factory mutual approved device
- Adjustable emissivity setting

Part No.	Mfr.'s Model No.	Distance to Spot	Temperature Range	Min./Max./Avg.	Data Logging	Hi-Lo Alarm
095969-29112	Fluke-62	D:S = 8:1	-20˚–932˚ F (-30–500˚ C)	Max.	N/A	N/A
095969-26114	Fluke-63	D:S = 12:1	-25–999˚ F (-32–535˚ C)	Max.	N/A	N/A
095969-26115	Fluke-66	D:S = 30:1	-25–1,100˚ F (-32–600˚ C)	All	Yes	Yes
095969-26116	Fluke-68	D:S = 50:1	-25–1,400˚ F (-32–760˚ C)	All	Yes	Yes
095969-29203	Fluke-68iS	D:S = 50:1	-25–1,400˚ F (-32–760˚ C)	All	Yes	Yes

FLUKE

Fluke® Insulation Multimeters

Ideal for troubleshooting and preventative maintenance of motors, drives, and cables

- Measure AC/DC voltage, DC milliVolts, AC/DC milliAmps, resistance (Ohms), and continuity beeper
- Live circuit detection prevents insulation test if voltage >30V is detected
- Also tests capacitance, diode test, temperature, and frequency
- Features min./max.
- Autodischarge of capacitive voltage
- Large display with backlight
- Includes remote probe, test leads and probes, and alligator clips
- Features Lo Pass Filter for motor drives
- CAT III — 1,000V; CAT IV — 600V rated

Part No.	Mfr.'s Model No.	Test Voltage	Insulation Test
095969-26295	Fluke-1587	50V, 100V, 250V, 500V, 1,000V	0.01 MOhm–2 GOhm

Fluke® Insulation Testers

Ideal for troubleshooting, commissioning, and preventative maintenance applications

- Live circuit detection prevents insulation test if voltage >30V is detected
- Autodischarge of capacitive voltage
- Auto power off
- 1-year warranty
- Remote test probe

Fluke-1507:

- Automatic calculation of Polarization Index and Dielectric Absorption Ratio
- Compare function (Pass/Fail)
- Lo ohms/earth-bond continuity

Fluke-1507 *Fluke-1503*

Part No.	Mfr.'s Model No.	Resistance	Test Range	Continuity	Test Voltages
095969-28867	Fluke-1507	0.01–20.00K	0.01M–10G	200mA	50V, 100V, 250V, 500V, 1,000V
095969-28866	Fluke-1503	0.01–20.00K	0.1M–2000M	200mA	500V, 1,000V

Fluke® 1520 MegOhmMeter

Great tool for troubleshooting motors and drives

- Switches automatically to voltage measure when voltage is greater than 30V AC or 30V DC
- 4 C-cell batteries provide up to 5,000 tests
- Auto-discharge of capacitive voltage charges
- 3-year warranty
- Accessories include test leads, alligator clips, test probes, and rugged, splash-proof case with impact-absorbing holster

Testing Voltages	250V, 500V, 1,000V
Insulation Resistance	4.000MΩ to 4000MΩ
Lo-Ohms Resistance	0 to 40.00Ω
Voltage Range	0 to 600V AC (50/60 Hz) 0 to 600V DC

Part No.	Mfr.'s Model No.
095969-09103	FLUKE-1520

ARC FLASH

WESCO TESTERS & METERS

FLUKE

Fluke® 1550B 5kV MegOhmMeter

Perfect for those who install, repair, or maintain switchgear, motors, generators, or cables

- Performs preventative and predictive maintenance programs designed to identify potential equipment failures before they occur
- Standard test voltages for equipment testing or program test voltages
- Automatic calculation of Dielectric Absorption and Polarization Index with no additional setup
- Measures cable or insulation capacitance and leakage current
- Warning voltage function alerts user that voltage is present and gives the voltage reading up to 600V AC or DC
- Test leads with 5,000V-rated probes and alligator clips
- Guard system eliminates the effect of surface leakage current on high-resistance measurements
- 99 memory locations
- Includes FlukeView® Forms Basic software and optical interface cable for easier downloading to Windows® PC
- Runs off of high-capacity rechargeable batteries
- 2-year warranty

Part No.	Mfr.'s Model No.	Description	Voltage	Resistance	Ramp Function
095969-24161	1550B	—	5,000V	1 Teraohm	0–5,000V DC
095969-20907	TL1550EXT	25' Extension Lead Set	—	—	—

Fluke® 180 Series Digital Multimeter

Offers 0.025% basic DC accuracy and 50,000-count resolution with instant readings for detailed analysis

- Use to measure AC/DC volts and currents, resistance, capacitance, frequency, and temperature in True-RMS AC/DC, min./max. hold, and analogue bar graph applications
- Frequency range 500 Hz–999.99kHz
- Includes test leads, probe holder, 2 AC72 clips, and 4 AA batteries
- Internal memory for logging and storage of up to 995 measurements (Fluke 189 only)
- Multiple reading display with bargraph and two-level backlight
- 100kHz AC bandwidth

Part No.	Mfr.'s Model No.	Voltage AC/DC	Ohms	Current AC/DC
785969-06323	FLK-189	50mV–1000V	500–30MØ	500µA–5A
095969-08930	FLK-187	50mV–1000V	500–50MØ	500µA–10A

High-Capacity Battery Pack for the 180 Series DMMs

095969-28465 BP189

Fluke® 80 Series V Digital Multimeters

Improved measurement functions, troubleshooting features, and accuracy to solve more problems

- Unique function for accurate voltage and frequency measurements on adjustable speed motor drives and other electrically noisy equipment
- Built-in thermometer (87-5)
- Optional magnetic hanger
- Large display digits and 2-level bright white backlight
- Withstands hazardous 8,000V spikes
- Improved sleep mode for long battery life
- Relative mode to remove test lead resistance from low ohms measurements
- Auto and manual ranging
- Complies with second edition IEC and ANSI electrical safety standards

Part No.	Mfr's Model No.
87 V True RMS Industrial Multimeter with Temperature	
095969-24524	FLUKE-87-5

87 V	
AC/DC Volts	1,000V
AC/DC Current	10A
Resistance	50MΩ
Frequency	199.99kHz
Capacitance	10,000 µF
Temperature (˚F)	(-328 to 1,994)

ARC FLASH

Fluke 87V/E2 Industrial Electricians Combo Kit

Makes troubleshooting even more productive

- Includes 87V True RMS multimeter with temperature
- SureGrip™ silicone test lead, alligator clip and Slim Reach test probe sets
- Integrated DMM temperature probe (Type K)
- Magnetic hanger
- Soft carry case

Part No.	Mfr.'s Model No.
095969-35321	FLUKE-87-5/E2-KIT

Fluke® 337 True-RMS AC/DC Clamp Meter

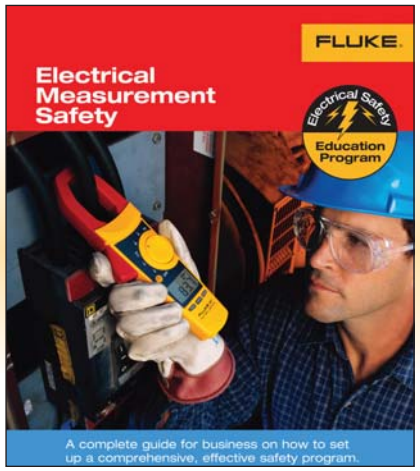
The top-of-the-line True-RMS clamp meter with large jaw measures AC/DC current and voltage, ohms, and frequency, and features display hold, motor startup current (in-rush), min./max. capability, and a large backlit display

- Patented inrush current feature measures motor-starting current
- AC/DC current
- Voltage, resistance, continuity
- True-RMS
- Display hold button and auto shutoff
- Frequency measurement and min./max. button
- Backlight

Part No.	Mfr.'s Model No.
095969-08929	337

Electrical Measurement Safety Program

Every day, approximately 1,000* Canadian workers suffer disabling injuries on the job. To help reduce the level of risk in your work environment, Fluke has created a Safety Program for electrical measurement — including a free safety video.


FLUKE
Electrical Measurement Safety
Electrical Safety
Education Program
A complete guide for business on how to set up a comprehensive, effective safety program.

Basics

Anyone performing electrical measurements should understand the safety standards and be certain their tools meet code.

Seminar Focus

Attendees will learn about current safety issues, review various electrical safety scenarios and the use of test tools as personal protection equipment (PPE). Safety standards and the elements of a safety program will be discussed.

Creating a Safety Program

For employers, Fluke provides a comprehensive resource kit with model training and policy programs, a safety presentation, safety video DVD, and a binder with all of the materials on Fluke's site.

For more information regarding Arc Flash, electrical safety and this program, please visit: **www.flukecanada.ca/safety** or contact your local Wesco Branch.

PANDUIT™ Label Cassettes for Use with the PanTher™ LS8 Hand-Held Thermal Transfer Printer

Labels offer crisp, clear legends

Part No.	Mfr.'s Model No.	Description	Width	Length	Print-On Height	Min. Cable O.D.	Max. Cable O.D.
Vinyl Self-Laminating Labels — White Print-On Area							
074983-35300	S050X150VAC	For 12–10 AWG Wires (225 per Cassette)	0.5" (12.7mm)	1.5" (38.1mm)	0.5" (12.7mm)	0.16" (4.04mm)	0.32" (8.09mm)
074983-35306	S100X225VAC	For 8–4 AWG Wires (125 per Cassette)	1" (25.4mm)	2.25" (57.15mm)	0.75" (19.05mm)	0.24" (6.06mm)	0.48" (12.13mm)
074983-35307	S100X400VAC	For 2–1 AWG Wires (75 per Cassette)	1" (25.4mm)	4" (101.6mm)	1" (25.4mm)	0.32" (8.09mm)	0.95" (24.26mm)
White, Vinyl Cloth Nonlaminated Labels							
074983-35244	N100X125CBC	For 12–10 AWG Wires (125 per Cassette)	1" (25.4mm)	1.25" (31.75mm)	N/A	0.4" (10.16mm)	0.85" (21.59mm)
White Polyolefin Heat-Shrink Labels							
074983-35002	H000X025F1C	⅛" Diameter	0.25" (6.35mm)	8' (2.44M)	N/A	0.04" (1.02mm)	0.13" (3.3mm)
074983-35012	H000X044F1C	¼" Diameter	0.44" (11.18mm)	6' (1.83M)	N/A	0.08" (2.03mm)	0.25" (6.35mm)
Vinyl Tapes							
074983-35315	T050X000VPC-BK	Black on White	0.5" (12.7mm)	25' (7.6m)	—	—	—
074983-35762	T100X000VPC-BK	Black on White	1" (25.4mm)	25' (7.6m)	—	—	—
074983-35784	T100X000VXC-BK	Black on Yellow	1" (25.4mm)	25' (7.6m)	—	—	—
074983-35780	T100X000VUC-BK	Black on Orange	1" (25.4mm)	25' (7.6m)	—	—	—

LABOUR SAVING PRODUCT

PANDUIT PanTher™ LS8 Hand-Held Thermal Transfer Printer

Eliminate label waste and label trimming labor

- Cut-to-length function
- Partial cut feature available to provide tear-apart strips of labels
- Label cassette contains integrated memory device for automatic formatting, recall of last legend used, and number of labels remaining in cassette
- Fast-loading label cassette includes both label material and ribbon to make changing labels easy
- Prints self-laminating labels, heat-shrink tubing, die-cut component labels, and continuous tape
- Large graphic display with backlight for improved visibility
- USB interface for importing data and system upgrades, and printing from a wireless laptop or desktop computer

Part No.	Mfr.'s Model No.	Description
074983-34911	LS8-KIT	Includes LS8 Printer, 1 Cassette of S100X150VAC Self-Laminating Labels,6 AA Alkaline Batteries, Rigid Carrying Case, LS8-PCKIT, LS8-IB, LS8-WS,and Quick Reference Card
074983-34910	LS8	Includes LS8 Printer, 1 Cassette of S100X150VAC Self-Laminating Labels,6 AA Alkaline Batteries, and Quick Reference Card
074983-34914	LS8-ACS	120 VAC Power Adapter for North America
074983-34919	LS8-PCKIT	Includes USB Cable and PC Interface Software for Importing Data, System Upgrades, and Printing from a Wireless Laptop or Desktop Computer
074983-34916	LS8-CASE	Rigid Carrying Case
074983-34917	LS8-CLN	Cleaning Cassette
074983-34918	LS8-IB	Protective Impact Bumper
074983-34920	LS8-WS	Wrist Strap

PANDUIT™ Arc Flash Labels

Large warning header, universal hazard symbols, and clear, concise hazard description communicate arc flash hazard

- Comply with 2005 NEC® Article 110.16 regarding flash protection
- Available in a range of sizes and materials

Part No.	Mfr.'s Model No.	Dimensions	Colour	Material
Standard Arc Flash Labels				
074983-85959	PPS0204W2100	2.25" x 4.50"	Black on Orange	Laminated Polyester
074983-85958	PPS0305W2100	3.50" x 5.00"	Black on Orange	Laminated Polyester
074983-85957	PPS0507W2100	5.00" x 7.00"	Black on Orange	Laminated Polyester
Detailed Arc Flash Labels				
074983-91262	PVS0305W2101	3.50" x 5.00"	Black/Orange on White	Write-On Vinyl
074983-91263	PVS0507W2101	5.00" x 7.00"	Black/Orange on White	Write-On Vinyl

PANDUIT™ Photoluminescent Tape

Tape absorbs energy from ambient light and releases the energy in the form of a glow when power is lost

- Constructed of photoluminescent polyester
- Use to mark safety egress routes and safety instructions
- Tape can be used to print on-demand safety signs, direction, and striped tape
- Material emits glow that is visible for up to 10 hours
- Complies with ASTM, OSHA, NFPA, and other photoluminescent safety marking standards

Part No.	Mfr.'s Model No.	Dimensions
074983-44956	T200X000Y2T	2"W x 15'L
074983-44955	T400X000Y2T	4"W x 15'L

PANDUIT™ Pneumatic Lockout Device

Isolate potentially hazardous pneumatic energy in accordance with OSHA 1910.147 without costly tool modifications or inconvenient in-line valves

- Accommodates a wide range of pneumatic fitting sizes
- Innovative compact and lightweight design is easy to transport and install, even in tight spaces
- Rugged stainless steel construction offers superior strength, durability, security, and corrosion resistance
- Multiple padlock hole locations accept up to two padlocks — ideal for use as a group lockout device

Part No.	Mfr.'s Model No.	Diameter	Thickness
074983-44947	PSL-PEL	3.50"	0.1"

PANDUIT™ Gate Valve Lockouts

Quickly and easily isolate energy sources in accordance with OSHA 1910.147

- Made of high-quality UV-resistant polypropylene material
- Easily adaptable for a variety of gate valve styles
- Multiple padlock holes on three largest sizes
- Features large interlocking tabs and hinge
- ⅜" diameter padlock holes

		Valve Handle Sizes	
Part No.	Mfr.'s Model No.	Diameter	Diameter
074983-44372	PSL-V2A	1.0" – 2.5"	25 mm – 64 mm
074983-44373	PSL-V6A	2.5" – 6.5"	64 mm – 165 mm
074983-24193	PSL-V9	6.5" – 10.0"	165 mm – 254 mm
074983-24203	PSL-V13	10.0" – 13.0"	254 mm – 330 mm

PANDUIT™ "No Tool" Circuit Breaker Lockouts

Quickly lockout single, double, and triple handle circuit breakers with this universal device

- Innovative toggle set screw design eliminates need for a screwdriver to install
- No modifications to the panel or breaker are needed to accommodate the device
- Rugged nylon/stainless steel construction
- Compact and lightweight

Part No.	Mfr.'s Model No.
074983-42118	PSL-CBNT
For Use with Square D I-LINE/Federal Pacific (FPE) Circuit Breakers	
074983-42119	PSL-CBILNT

PANDUIT™ Molded Case/Enclosed Systems Circuit Breaker Lockout

Designed to lock out a wide range of 3-phase circuit breakers (227V and above)

- Installs quickly and easily without any tools
- Accommodates breaker handle dimensions up to 0.80" thick x 3.00" wide (20.00 mm x 76.00 mm)
- Secures and prevents re-engaging of the breaker handle
- Constructed of rugged nylon and stainless steel, providing strength, durability, added security, and corrosion resistance
- Large handle

Part No.	Mfr.'s Model No.
074983-62678	PSL-CBL

PANDUIT™ Wall Switch Lockout

Lock out electrical supply controlled by ordinary toggle switches

- Compact, secure design fits most toggle switches and some small circuit breakers
- Accommodates switches 0.45"–0.78" (12.2 mm–19.8 mm) high x 0.25"–0.38" (6.4 mm–9.6 mm) wide x 0.25"–0.40" (6.4 mm–10.2 mm) thick
- Attaches easily without removal of face plate or screws
- Quick installation with standard screwdriver

Part No.	Mfr's Model No.
074983-34378	PSL-WS

PANDUIT™ Multiple Lockout Device

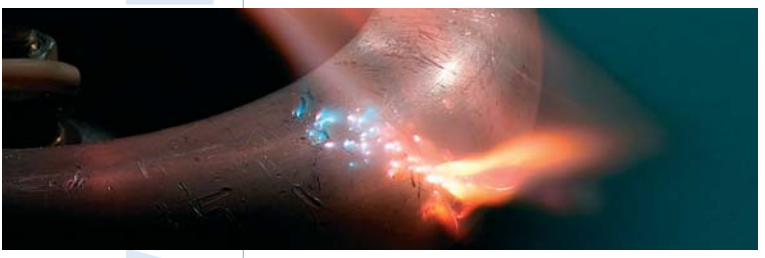
Locks out electrical disconnects, gate valves, or large cumbersome devices

- Includes lockout hasp and cable
- Constructed of rugged polycarbonate and stainless steel, providing strength, durability, added security, and corrosion resistance
- Only one device needed to perform a variety of lockout functions
- Compact and easy to install

Part No.	Mfr.'s Model No.
074983-62679	PSL-MLD

GARD

the power to protect



What do the industry experts say about Arc Flashing?

"High-resistance grounding for low voltage power distribution systems enhances reliability and uptime of power distribution equipment and is proven effective in significantly reducing the frequency and severity of arc flash accidents."

2003 IEEE IAS Electrical Safety Workshop

What does IEEE say about solidly grounded systems?

"The solidly grounded system has the highest probability of escalating into a phase-to-phase or three-phase arcing fault, particularly for the 480V and 600V systems. A safety hazard exists for solidly grounded systems from the severe flash, arc burning, and blast hazard from any phase-to-ground fault."

IEEE Standard 141-1993

What does IEEE say about high resistance grounded systems?

High Resistance Grounding helps ensure a ground-fault current of known magnitude, helpful for relaying purposes. This makes it possible to identify the faulted feeder with sensitive ground-fault relays.

IEEE Std 242-1986 7.2.4

High Resistance Grounding provides the same advantages as ungrounded systems yet limits the steady state and severe transient over-voltages associated with ungrounded systems. There is no arc flash hazard, as there is with a solidly grounded system, because the fault current is limited to approximately 5A.

IEEE Std 141-1993 7.2.2

GARD

Sleuth™ is a neutral grounding device that limits ground fault currents to nondamaging levels under a single line-to-ground fault condition. Sleuth™ is the ideal tool for sensing and locating ground faults quickly and easily. When a ground fault occurs, Sleuth™ controls and limits the fault current, providing an alarm that indicates an active fault, and enabling electrical personnel to follow a simple sequence to locate and isolate the fault without interrupting the circuit or opening circuit breakers.

DSP Second Fault Protection — The DSP system is designed to detect the event of a single ground fault, signal an alarm, and point to the affected branch or feeder. Maintenance can be immediately alerted to the problem and an operator dispatched to locate the fault and isolate it promptly.

The DSP system can assist in locating the fault with a pulsing fault location circuit. In the event of a second ground fault, the DSP acts quickly to prevent loss of two feeders by selectively tripping the lower priority feeder only.

IPC

Levitt-Safety Flame-Resistant Treated Cotton (FRTC) Arc Flash Personal Protection Kit

A complete Arc Flash protection kit

- Lower initial cost for less frequent use
- Coats feature flame-resistant Velcro closure and adjustable cuff closure
- Bib-overalls feature flame-resistant suspenders and expandable pleat at waist
- Bib-overalls and coveralls feature wide pant legs

Part No.	Mfr.'s Model No.	Protection Value
Coat & Bib-Overalls with Arc Flash Hood with Hard Cap		
400810-92000	COIFR2STB	15 CAL/CM²
400810-92001	COIFR3B	25 CAL/CM²
400810-92002	COIFR4B	40 CAL/CM²
400810-92003	COIFR5B	65 CAL/CM²
400810-92004	COIFR6B	100 CAL/CM²
Coverall with Deluxe Arc Shield with Hard Cap		
400810-92005	COIFR1A	4 CAL/CM²
400810-92006	COIFR2A	8 CAL/CM²

Part No.	Mfr.'s Model No.	Protection Value
Coverall with Arc Flash Hood with Hard Cap		
400810-92007	COIFR2STA	15 CAL/CM²
400810-92008	COIFR3A	25 CAL/CM²
400810-92009	COIFR4A	40 CAL/CM²
400810-92010	COIFR5A	65 CAL/CM²
400810-92011	COIFR6A	100 CAL/CM²

Levitt-Safety Inherently Flame-Resistant (IFR) Arc Flash Personal Protection Kits

A complete Arc Flash protection kit

- Lightweight — up to 50% lighter than FRTC fabrics and proprietary fabrics
- More durable for frequent use and laundering
- Bib-overalls and coveralls feature wide pant legs
- Coats and coveralls feature flame-resistant zippered closure with Dupont® Nomex® Velcro safety flap, Nomex® sleeve cuff, and Nomex® threads
- Bib-overalls feature flame-resistant suspenders and expandable pleat at waist

Part No.	Mfr.'s Model No.	Protection Value
Coat & Bib-Overalls with Arc Flash Hood with Hard Cap		
400810-92012	COFRTC2B	8 CAL/CM²
400810-92013	COFRTC2STB	11 CAL/CM²
400810-92014	COFRTC3B	25 CAL/CM²
400810-92015	COFRTC4B	40 CAL/CM²

Part No.	Mfr.'s Model No.	Protection Value
Coverall with Deluxe Arc Shield with Hard Cap		
400810-92016	COFRTC1A	4 CAL/CM²
400810-92017	COFRTC2A	8 CAL/CM²
Coverall with Arc Flash Hood with Hard Cap		
400810-92018	COFRTC2STA	11 CAL/CM²
400810-92019	COFRTC3A	25 CAL/CM²
400810-92020	COFRTC4A	40 CAL/CM²

Levitt-Safety ArcShield™ Faceshields

The original arc-rated faceshield!

- Made with ArcX™ energy-absorbing impact-resistant polycarbonate, enabling the highest visible light transmission
- ATPV 12 cal/cm²
- Deluxe version features Silitcote™-1 scratch-resistant coating and a permanent anti-fog coating
- Exceed requirements of NFPA 70E, ASTM F2178, and ANSI Z87.1

Part No.	Mfr.'s Model No.	Description
400810-92021	CO21ARCAFC500	Deluxe with Slotted Hard Cap
400810-92022	CO21ARC-C+500	Standard with Slotted Hard Cap

Levitt-Safety Maxim Safety Glasses with Arc-Block Lens

Dual-aspheric lens create sleek, superior styling

- Soft browguard for cushioned comfort
- DX™ anti-fog hard coat resists fogging, scratching, and chemical splashes
- Soft, adjustable nosebridge for custom fitting
- Meet ANSI Z87.1 and CSA Z94.3 standards

Part No.	Mfr.'s Model No.	Frame
400810-92023	EA012291	Black

Levitt-Safety Rubber Insulating Gloves and Protectors

Provide insulation from potential electric shock

- Made using an aqueous dip process that creates thinner gloves for enhanced dexterity
- Gloves are yellow
- Leather protectors protect rubber gloves from puncture
- Gloves are manufactured in accordance with and tested to ASTM D120
- Other Class gloves available (call your local WESCO Branch for ordering information)

Part No.	Mfr.'s Model No.	Size
Glove Kits — Rubber Gloves, Leather Protectors, and Storage Bag		
400810-92024	COGLVKTYRCO11-08	8
400810-92025	COGLVKTYRCO11-09	9
400810-92026	COGLVKTYRCO11-10	10
400810-92027	COGLVKTYRCO11-11	11

NOTE: Always select the glove based upon the voltage of the system you will be working on

Levitt-Safety Arc Flash Protective Hoods

Use with Arc Flash Shield to create 360° head and neck protection from arc flash dangers

- Made from two layers of rib knit material
- Elastic face opening maintains shape and size

AFHOOD10
- Made from 20% Nomex® and 80% Lenzing FR® materials
- ATPV rating of 10 cal/cm²

AFHOOD15
- Made from 100% Nomex® material
- ATPV rating of 15 cal/cm²

AFHOOD20
- ATPV rating of 20 cal/cm²
- Made from 40% P84®, 55% Lenzing FR® material, and 5% Kevlar®

Part No.	Mfr.'s Model No.
400810-92028	CLAFHOOD10
400810-92029	CLAFHOOD15
400810-92030	CLAFHOOD2

Levitt-Safety UltraFit ARC Earplugs

Clear hearing with instant protection

- Dual-sided for two kinds of protection
- Each pair includes carrying case

Red Side
- Constant hearing protection (NRR 22) with no hear-through — for situations where constant protection from extended exposure to hazardous noises is vital

Yellow Side
- Hear-through and instant protection, enabling workers to hear conversation, signals, and other critical sounds clearly, without impairment
- If arc flash occurs, the calibrated noise filter activates immediately to suppress the noise to a safer level with no dangerous delay

Part No.	Mfr.'s Model No.	Pkg. Qty.
400810-92031	PA03702000	10 Pairs per Box

WESCO℠

Canadian Branch Listings

Branch	Address	Postal Code	Telephone	Fax
Abbotsford, BC	34377 Marshall Rd.	V2S 6Y3	(604) 859-3111	(604) 859-5396
Burnaby, BC	6000 Lougheed Hwy.	V5B 4V6	(604) 299-5566	(604) 299-5547
Castlegar, BC	2328 6th Ave.	V1N 2W1	(250) 365-0545	(250) 365-0969
Kamloops, BC	961A Laval Crescent	V2C 5P4	(250) 374-2112	(250) 372-8044
Kelowna, BC	1936 Kent Rd.	V1Y 7S1	(250) 862-8200	(250) 860-0060
Nanaimo, BC	1809 Fremont Rd.	V9S 3H3	(250) 758-1777	(250) 758-2429
Prince George, BC	2223 Nicholson St., N.	V2N 1V9	(250) 562-3306	(250) 562-4832
Richmond, BC	3331 Viking Way, Unit #9	V6V 1X7	(604) 270-7873	(604) 273-3299
Surrey, BC	Unit 201-12844 Anvil Way	V3W 8E7	(604) 599-1100	(604) 599-1119
Victoria, BC	481 Cecelia Rd.	V8T 4T4	(250) 382-7265	(250) 382-5334
Fort St. John, BC	#1- 11427 Alaska Road	V1J 6N2	(250) 261-6738	(250) 261-6702
Calgary, AB	810 - 59th Ave., S.E.	T2H 2G5	(403) 253-7561	(403) 258-0210
Edmonton, AB	11641 – 151st St.	T5M 4E6	(780) 452-7920	(780) 451-2195
Fort McMurray, AB	385 Mackenzie Blvd., Unit #100	T9H 5E2	(780) 799-4337	(780) 799-4475
Grande Prairie, AB	11491 - 98th Avenue	T8V 5S5	(780) 539-2110	(780) 539-2120
Red Deer, AB	7743 - 50th Ave., Unit #1	T4P 1M7	(403) 343-2113	(403) 340-8210
Regina, SK	1625 - 8th Ave.	S4R 1E6	(306) 525-5841	(306) 347-0706
Saskatoon, SK	2911 Faithfull Ave.	S7K 8E8	(306) 242-1296	(306) 934-6561
Winnipeg, MB	1099 King Edward St.	R3H 0R3	(204) 633-3000	(204) 633-9157
Hamilton, ON	1910 Barton St., E	L8H 2Y6	(905) 545-0313	(905) 545-0877
Ottawa, ON	2320 St. Laurent Blvd.	K1G 6C4	(613) 733-2500	(613) 733-9223
Kingston, ON	640 Cataraqui Woods Dr.	K7P 2Y5	(613) 389-1662	(613) 389-3274
Sarnia, ON	567 Vidal St. S.	N7T 2V8	(519) 336-0722	(519) 336-2499
Kitchener, ON	10 Goodrich Dr.	N2C 2K8	(519) 893-6630	(519) 893-4611
Sudbury, ON	48 Pacific Ave.	P3C 3H9	(705) 673-8413	(705) 673-1845
London, ON	353 Sovereign Rd.	N6M 1A6	(519) 659-9990	(519) 451-9607
Thunder Bay, ON	930 Alloy Dr.	P7B 6A4	(807) 622-0638	(807) 623-2786
Markham, ON	475 Hood Rd.	L3R 0S8	(905) 415-6100	(905) 415-8722
Timmins, ON	1355 Riverside Dr.	P4N 7H6	(705) 264-5566	(705) 264-1522
Mississauga, ON	281 Traders Blvd. E.	L4Z 2E5	(905) 890-3344	(905) 890-8533
Windsor, ON	3250 Electricity Dr.	N8W 5J1	(519) 948-9888	(519) 948-8750
Chicoutimi, QC	1190 Rue Manic	G7K 1A2	(418) 549-0368	(418) 549-7048
Dorval, QC (ITG) Intégration Services	1330 route Trans-Canada, bureau 200	H9P 1H7	(514) 685-0555	(514) 685-0645
Dorval, QC (NDC)	1330 route Trans-Canada	H9P 1H7	(514) 421-1919	(514) 421-5558
Laval, QC	3469 boul. Industriel	H7L 4S3	(450) 901-3031	(450) 901-3032
Longueuil, QC	2404 rue de la Province	J4G 1G1	(450) 928-9372	(450) 928-1367
Québec, QC	255 rue Fortin, #100	G1M 3M2	(418) 527-8855	(418) 527-9372
Rimouski, QC	170 rue Industrielle	G5M 1A5	(418) 724-9224	(418) 724-2541
Sept-Îles, QC	253 avenue Joliette	G4R 2A8	(418) 962-6552	(418) 962-8639
Sherbrooke, QC	144, rue Léger	G1M 3M2	(819) 823-9918	(819) 829-1477
St. Jean-sur-Richelieu, QC	365 Grand Bernier Nord	J3B 4R9	(450) 347-5324	(450) 347-9541
St. Laurent, QC	655 rue Gougeon	H4T 2B4	(514) 343-8383	(514) 343-8399
Trois-Rivières, QC	2435 Sidbec Sud	G8Z 4M6	(819) 691-4212	(819) 691-2666
Val-d'Or, QC	1510 – 4 ieme Rue	J9P 6X2	(819) 824-8877	(819) 824-8847
Moncton, NB	400 Edinburgh Dr.	E1E 2L1	(506) 857-8600	(506) 858-0546
Sydney, NS	1097 Upper Prince St.	B1P 5P5	(902) 562-5556	(902) 562-2322
Dartmouth, NS	133 Ilsley Ave., Unit T	B3B 1S9	(902) 468-5851	(902) 468-2960
St. John's, NL	95 O'Leary Ave.	A1B 2C9	(709) 726-9073	(709) 726-8490

WESCO Distribution, a leading distributor of MRO (maintenance, repair, and operating) products and procurement outsourcing services is the primary operating entity of WESCO International, a Fortune 500 company. Major markets served include industrial, construction, government, and data communications with more than 370 full-service Branches throughout North America and around the world.

For more information, call 1-866-WESCOCA (937-2622).

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Safety solutions we can all live by

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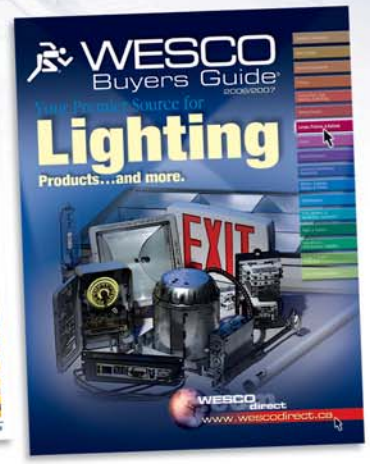

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- *Sensors, Timers, & Wiring Devices*
- *Test Equipment and more...*

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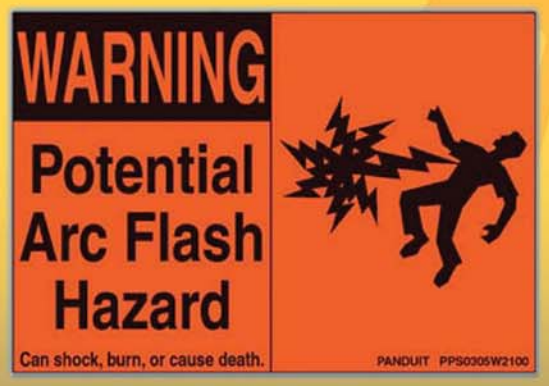
See the listing to the left for the local WESCO Branch nearest you.

Prevention & Protection

WESCO Safety Guide™



WESCO offers a complete product solution for both prevention of and protection against an Arc Flash incident.

Current-Limiting Devices

- Fast-acting and peak current-limiting fuses
- Current-limiting breakers

Personal Protective Equipment

- Suits, hoods, gloves, footwear
- Remotely operated viewing and removal devices

Insulated Electrical Tools

- Electrician tool kits

Warning Labels

- Hardware and software for creating labels compliant with electrical codes
- Lockout/tagout hardware and procedures
- Training videos and instructional guides

WESCO provides a comprehensive product and service solution from awareness, education, training, and assessment to current-limiting devices, personal protective equipment, insulated tools, and warning labels to help customers prevent and protect against Arc Flash incidents. to comply with the NFPA 70E guidelines that OSHA is enforcing.

WESCO Distribution, Inc. is the operating arm of WESCO International, an industry-leading Fortune 500 distributor of MRO (maintenance, repair, and operating) products, construction products, and advanced integrated supply procurement outsourcing services. Headquartered in Pittsburgh, Pennsylvania, WESCO operates more than 370 full-service Branches throughout North America and around the world. Major markets served by WESCO include commercial and industrial construction, industrial process and discrete manufacturers, large industrial OEMs (original equipment manufacturers), electric utilities, data communications, and retail/commercial power and lighting controls.

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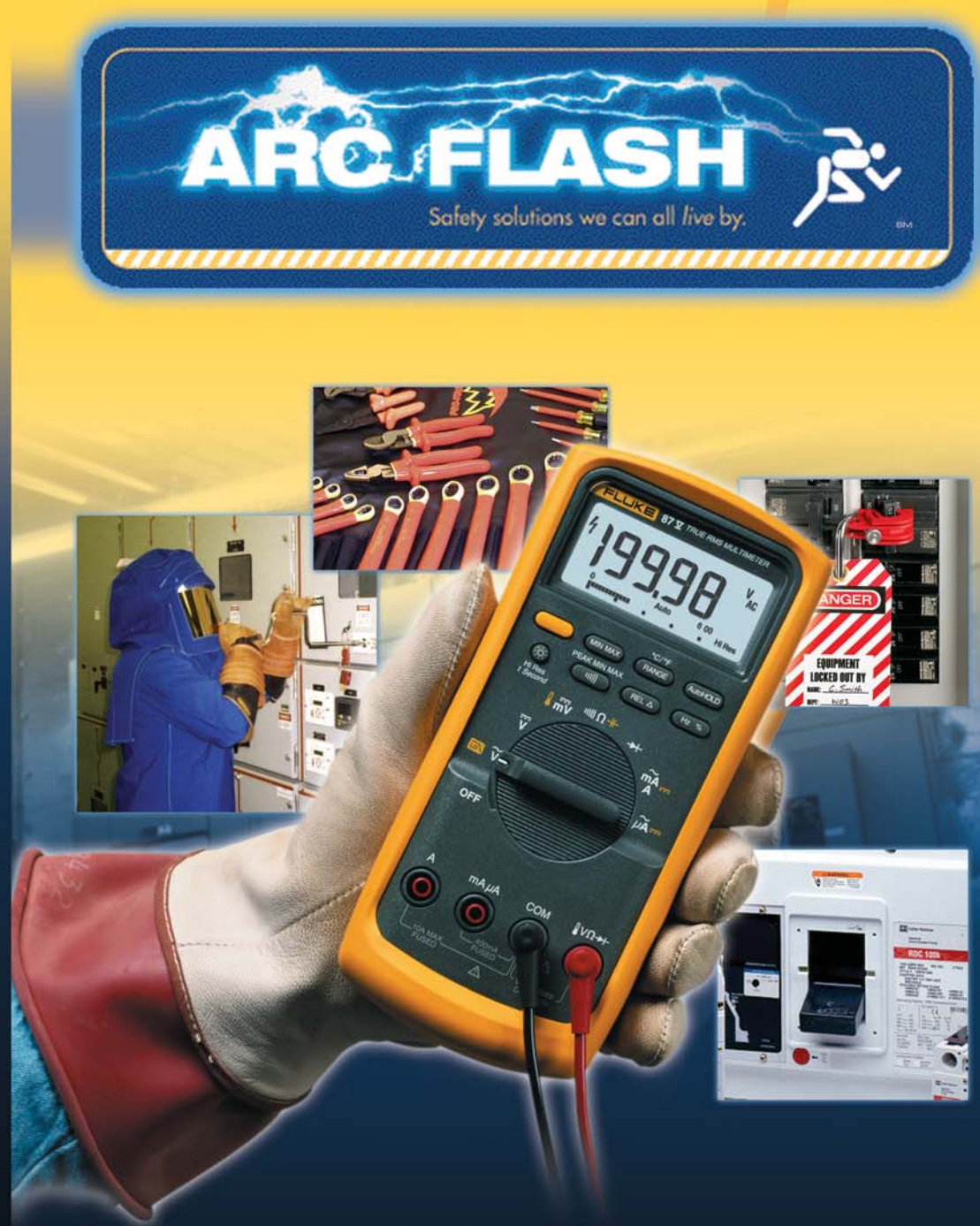

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Protect your workers and your company's bottom line with Arc Flash Safety Solutions from WESCO.